Job Number: SHSD-JRA-07 Job Title: Hazardous Waste Operations consultation by the IH Group	Point Value → Parameter ↓	1	2	3	4	5
Job Description: Conducting Site Characterizations field work, consulting, and exposure monitoring. Applies to CERCLA sites and other BNL remediation activities.	Frequency (B)	≤once/ year	≤once/ month	≤once/ week	≤once/ shift	>once /shift
Name(s) of Risk Team Members: E. Lacina, B. Heneveld, R. Wilson, N. Sanchez, R. Selvey, J. Peters (attended part of session)	Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Training Procedures List (Optional): HazWoper 40 hr; HazCom; HASP controls Applicable Standard Operating Procedures: Approved by: R. Selvey Date: 04/19/06 Rev. #: 1	Likelihood (D)	Very Unlikely	Unlikely	Possible	Probable	Multiple
Stressors (if applicable, please list all Environmental conditions of outdoor work- sun, rain, cold, snow, Protection & PPE	etc.; Respiratory		Revision (if apate comments for		Comments:	

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Job Step / Task	Hazard	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction			
Preparing for field work by reviewing plans, Work Planning documentation, Technical Work documents, HASPs, etc.	Typical office work hazards- trips, falls, ergonomic, VDT eye strain	1	3	1	1	3	Refer to Office Work JRA	N	3	1	1	1	3											
Collecting PPE & equipment for field work	Falling objects from shelves, ergo strain, pinch, abrade of sharp edges	1	3	2	1	6	ergo training, toe boards on shelves; tape covering prominent edges	N	1	3	2	1	6						_					
Travel to and from	Injury from an auto accident	-	-	-	-	-	JRA for vehicular travel (Driving)	Υ	1	5	3	2	30		_	_	_	_	_					
Exposure to Site hazards (adapted from JRA-09 Construction Projects, discussed at JRA-07 meeting)	Natural hazards in the environment- bees, heat, vectors- ticks/chiggers, mosquitoes	1	3	2	2	12	SBMS Natural Hazards in the Environment; PPE such as barrier to insects, sprays sun screen	Υ	1	3	2	1	6											

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	Bad weather- snow, rain, lightning, sun	1	3	2	4	24	SBMS Natural Hazards in the Environment controls, sun screen	Υ	1	3	2	2	12								
	Ionizing radiation exposure	1	2	2	4	32	RWP, postings, training	N	1	2	1	1	4		_	_	_	_	_		
	Non-ionizing radiation exposure (e.g.: lasers, welding, etc.)	1	3	4	3	36	PPE, postings, permits, health & safety plan, work planning, applicable permits	N	1	3	4	2	24								
	Slips, trips, falls on ground level	1	5	3	3	45	PPE, postings, housekeeping, temporary lighting, awareness, physical barriers	Υ	1	5	3	2	30								
	Chemical exposure	1	3	3	3	27	Postings, MSDS available at site, health & safety plan, Hazcom training, PPE, housekeeping	N	1	3	3	2	18								
	Exposure to fibers (e.g.: asbestos, fiberglass), mercury, lead, etc.	1	3	3	3	27	Health & safety plan, postings, training, physical barriers	N	1	3	3	2	18								
	Exposure to energized systems (temporary lighting, portable lighting, powered hand held tools, etc.)	1	4	5	3	60	Training inclusive of NFPA 70E, postings, lock out/tag out, PPE, physical barriers	Υ	1	4	5	2	40								
	Being struck by moving machinery/ equipment	1	5	5	2	50	High visibility clothing (reflective vests, etc), control zones, communication, back up alarms on vehicles, supervision, barricades, health & safety plan, trained operators	Y	1	5	5	1	25								
	Exposure to fumes from exhaust of machinery/equipment	1	5	2	2	20	Ventilation, surveys, alternate equipment (e.g.: electric forklift), health & safety plan	N	1	5	2	1	10				_				
	Noise exposure	1	4	2	3	24	PPE, training, postings, health & safety plan	N	1	4	1	2	8								

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	Dropped load from crane operations	1	4	5	3	60	Control zones, visual & verbal communication, supervision, barricades, health & safety plan, trained operators, postings, crane inspection, rigging equipment inspection, required PPE	Υ	1	4	5	1	20								
	Flying/Falling debris or objects	1	4	3	3	36	PPE, postings, health & safety plan, work control zone, work planning	Υ	1	4	3	2	24		_			_	_		
	Impalement from rebar or other impalement hazards	1	3	5	3	45	Required caps for rebar, housekeeping, awareness, physical barriers	Υ	1	3	5	1	15								
	Falls to same level and on stairs, depressions in land	-	-	-	-	-	See Walking JRA	Υ	1	5	2	4	40								
	Restricted viewing in PPE	1	3	2	4	24	Buddy system, dry run practices, communication controls	Υ	1	3	2	4	24		_				_	_	
Walking in/out/ and within building & sites	Falls from elevated locations (e.g.: scaffold, platform, roof surface, etc.)	1	5	5	2	50	Fall Protection Systems (e.g.: guard rail system, physical barriers, perimeter protection, full body harness, etc.), ladder safety training, competent person, floor opening covers, housekeeping	Υ	1	5	5	1	25								
Inspecting and sampling in Hazwoper areas and sites	Exposure to site hazards from inspection actions and proximity to sources (especially lead, chemicals, radiological, Lasers)	1	2	3	3	18	PPE (gloves, suits, safety glasses, safety toe shoes, respirators- Level B, C, D) respiratory protection as required for surface and air contaminants, RWP, awareness to location of eyewash/shower in area	Υ	1	3	2	1	6					_	_		
	Falls on access to sampling points	1	2	4	2	16	Authority to refuse hazardous locations;	N	1	2	4	1	8								

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	Heat Stress from PPE	1	1	4	4	16	HS Dosimeters, Site HS monitoring, training, rest breaks, physiological monitoring	Υ	1	1	4	3	12								
	Serve as atmosphere tester	-	-	-	-	-	See SHSD JRA-05	-	-	-	-	-	-					_	_		
Confined Spaces	Enter into a Confined space for observations or monitoring- asphyxiation, chemical/physical hazard exposure	1	1	5	4	20	BNL CS program, certifications and permits, rescue systems, SCBAs	N	1	1	5	2	10			_	_	_			
Limits on this JRA Escalation of hazards and the corresponding controls above Level B is not covered by this JRA	Elevated hazard exposure potential	-	-	-	-	-	Use of work permit system is relied on for evaluation & controls of hazards on a case by case basis	-	-	-	-	-	-								

Further Description of Controls Added to Reduce Risk: controls were determined to be adequate

Lesson Learned from this Risk Assessment: no additional measures were deemed necessary at this time

*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable